

Notice of Allowability

Application No.

10/043,971

Examiner

Nguyen T Ha

Applicant(s)

FASEN, DONALD J.

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/11/2002 and 12/1/2003.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 11 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 3 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. <u>1</u> | 7 <input type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |



ANTHONY DINKINS
EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-22 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to claims 1-12, the prior art alone or in combination does not teach the limitation of an electrostatic driver comprising: a driver configured to drive a stator electrodes into any of a plurality of sequential voltage state, each voltage state being defined by a combination of LO and HI voltage levels existing at the stator electrodes, wherein transition from one voltage state to a sequentially adjacent voltage state produces a step size of relative movement between the mover and stator.

With respect to claims 13-21, the prior art alone or in combination does not teach the limitation of an electrostatic drive comprising a driver configured to selectively apply a voltage level to each of the electrodes, the voltage level being selected from the group consisting of a HI level, a LO level, and a scalable level from a range including levels between the HI and LO level, wherein the driver is configured so that varying the scalable level between the HI and LO levels proportionally adjusts the relative movement occurring between the objects.

With respect to claim 22, the prior art alone or in combination does not teach the limitation of an electrostatically-driven computer storage device comprising: a driver configured to drive the access device electrodes into any of a plurality of sequential voltage states, each voltage state being defined by a combination of LO and HI voltage levels existing at the access device electrodes, where transition from one voltage state

to a sequentially adjacent voltage state produces a step size of relative movement between the storage medium and the access device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation Relevant of Prior Art

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Musolf et al. disclose electrostatic actuators with intrinsic stress gradient.
 - b. Chiou et al. disclose microelectronic tunable capacitor and method for fabrication.
 - c. Williams discloses micromachined parallel-plate variable capacitor with plate suspension.
 - d. Hill et al. disclose MEMS device members having portions that contact a substrate and associated methods of operating.
 - e. Adkins et al. disclose an electronic device including multiple capacitance value MEMS capacitor.
 - f. Goodwin-Johansson discloses an electrostatically controlled variable capacitor.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T Ha whose telephone number is 703-308-6023. The examiner can normally be reached on Monday-Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 703-308-3682. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Nguyen T. Ha

January 16, 2004



Anthony J. Jenkins